



September 22, 1998

Mr. Edward G. McClung
W. F. Cody's
3138 E. Sunshine
Springfield, MO 65804

Dear Mr. McClung:

Due to the possible release of an unknown volume of solvent into the City's sanitary sewer you may have been experiencing odors or vapors entering your premises at 3138 E. Sunshine by way of a plumbing connection to the City sanitary sewer. Proper authorities have been made aware of the situation and an investigation is currently underway to determine the source of the substance release and to address the current conditions.

The fact that these odors or vapors may have entered your building as a result of your private sewer line being connected to the City sanitary sewer is of great concern to us. Regardless of the current situation involving solvent vapors or odors, it appears that the condition of your private sewer plumbing could allow unwanted gases, vapors, and odors to enter your premises. At any given time, there may be a number of dangerous gases present in a City sanitary sewer that can present potentially serious health and safety hazards to you and the occupants at this location. These potentially dangerous gases are a part of the natural process of the decomposition of organic matter. Obviously, the organic matter that is present in the City sanitary sewer is there by design. The City sanitary sewer system is intended for the disposal of human and other wastes and acts as a conveyance of those wastes to the wastewater treatment plant where it is properly treated and clean water is released into area streams. Some of the more common dangerous or noxious gases encountered in sewers are discussed in the enclosed table.

There are, of course, many other substances that can be present in the City sanitary sewer. Liquid wastes may be produced by wet-process industries or commercial establishments. Industrial and commercial wastewaters vary greatly in both quantity and pollutional capacity such that it is impossible to assign fixed values to their common constituents. Some of these wastes may be legally discharged into the City sewer system when they are sufficiently pretreated or provided the volume is small with respect to the normal sewage flow. On occasion, other substances, raw materials, bulk liquids, off-specification products, date expired chemicals, etc. have been either released accidentally or improperly disposed of by industries or commercial establishments.

3138 E. Sunshine

DEPARTMENT OF PUBLIC WORKS

840 BOONVILLE AVENUE, P.O. BOX 8368 SPRINGFIELD, MISSOURI 65801-8368

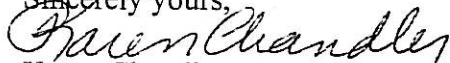
(417) 864-1900

Many individuals have improperly disposed of left-over household chemical products by pouring them down a drain at their private residence.

In summary, private sewer plumbing which is in good repair and meeting local plumbing codes is designed to prevent gases or vapors that may be present in the City Sanitary sewer system from venting back into the building. The solvent odors apparently entered the building because of an open pipe coming off the vent pipe by the ice machine and because of an open cleanout pipe in the floor drain by the ice machine. Any drain that has not had water running through it for some period of time may not protect the premises due to the water seal having evaporated between the sewer and the occupied indoor space. Some water seals are visible and used frequently; such as the water that remains in the bottom of a toilet stool or in the drain under a kitchen sink. By looking under a sink one can observe the waste piping actually reversing direction to form a water seal or trap. Other water seals or traps may be hidden under floors or inside walls or used infrequently. Put simply, no water, no seal, no protection. Infrequently used drains or traps should have a gallon or more of water poured down them periodically so that the trap or seal can serve to prevent sewer gases and vapors from entering a building structure. After pouring water into a dried out drain or trap, by adding a small amount of mineral oil to the drain or trap may help to keep the water from evaporating so quickly in the future.

The conditions discussed above indicates that some plumbing deficiencies may exist in the building and that steps should be taken to correct the problem. Should you have any further questions you may call the City wastewater utility at 864-1923. Any questions regarding the condition or repair of your private sewer plumbing should be directed to the City Department of Building Development Services at 864-1056. Any questions or concerns relating to personal health or exposures may be directed to the Springfield/Greene County Health Department at 864-1658.

Sincerely yours,



Karen Chandler

Industrial Pretreatment Section

cc: Bob Schaefer, P.E., Assistant Director of Public Works-Environmental Services
Ed Malter, P.E., Superintendent of Sanitary Services
Kevin Harp, City Utilities of Springfield
Ron Lawson, Health Department
Dan Dougherty, Fire Department
File A:\CODYSLT.FRM

COMMON NOXIOUS OR DANGEROUS GASES ENCOUNTERED IN SEWERS*

Name of Gas	Chemical Formula	Specific Gravity of Vapor Density** (Air=1)	Explosive Range (% by volume in air)		Common Properties (Percentages below are per cent in air by volume)	Most Common Sources in Sewers
			Lower Limit	Upper Limit		
Oxygen (In air)	O ₂	1.11	Not Flammable		Colorless, odorless, tasteless, non-poisonous gas. Supports combustion..	Oxygen depletion from poor ventilation and absorption or chemical consumption of available O ₂ .
Gasoline Vapor	C ₈ H ₁₂ to C ₁₂ H ₂₀	3.0 to 4.0	1.3	7.0	Colorless, odor noticeable in 0.03%. Flammable. Explosive.	Leaking storage tanks, discharges from automotive repair establishments, and commercial or home uses as a cleaning solvent.
Carbon Monoxide	CO	0.97	12.5	74.2	Colorless, odorless, tasteless, non-irritating. Flammable. Explosive.	Natural gas utility, gas mains, services, and other sources. Manufactured fuel gas, Products of combustion, motor exhausts, fires of any kind.
Hydrogen	H ₂	0.07	4.0	74.2	Colorless, odorless, tasteless, non-poisonous, flammable. Explosive. Propagates flame rapidly. Very dangerous.	Natural gas utility, gas mains, services, and other sources. Sewer gas. Manufactured fuel gas.
Methane	CH ₄	0.55	5.0	15.0	Colorless, tasteless, odorless, non-poisonous. Flammable. Explosive.	Natural gas utility, gas mains, services, and other sources. Manufactured fuel gas. Sewer gas.
Hydrogen Sulfide	H ₂ S	1.19	4.3	46.0	Rotten egg odor in small concentrations but sense of smell rapidly impaired. Odor not evident at high concentrations. Colorless. Flammable. Explosive. Poisonous.	Petroleum fumes, sewer gas. Fumes from blasting under some conditions.
Carbon Dioxide	CO ₂	1.53	Not flammable.		Colorless, odorless, non-flammable. Not generally present in dangerous amounts unless there is already a deficiency of oxygen.	Products of combustion. Sewer gas.
Nitrogen	N ₂	0.97	Not flammable.		Colorless, tasteless, odorless. Non-flammable. Non-poisonous. Principal constituent of air (about 79%).	Sewer gas.
Ethane	C ₂ H ₆	1.05	3.1	15.0	Colorless, tasteless, odorless, non-poisonous. Flammable. Explosive.	Natural gas utility, gas mains, services, and other sources.

*From Manual of Instruction for Sewage Treatment Plant Operators and Safety in Wastewater Works. WPCF-1975.

**Gases with a specific gravity less than 1.0 are lighter than air; those more than 1.0 heavier than air.

I N T E R

O F F I C E

MEMO

To: Cody's-3138 E. Sunshine
From: Karen Chandler
Subject: Solvent smell in building
Date: September 14, 1998

On Thursday afternoon, September 3, 1998, at 1:45 p.m., Randy Lyman received a call from Bill Applegate of the City Utilities Gas Department. Mr. Applegate told Randy that W. F. Cody's had a solvent odor in their building. He also said that Kevin Harp, of the Gas Department, would be there. Randy called the Fire Department and was transferred to Dan Dougherty, a fire marshal. Randy and I went to this address and checked MH 50 (Wye Map Q22-NE) at 2:30 p.m. and got a reading of 5% L.E.L. We opened the cover and dipped sewage out of both lines coming into the manhole. There was no solvent odor and nothing floating on top of either dipperful of water. There was, however, a solvent odor in the manhole. Randy, Dan and I went in the back door of Cody's and talked to one of the employees. She told us they had smelled the odor for three or four days before calling City Utilities. She also said it has come in the kitchen several times in the past and then goes away. She mentioned that sometimes it smells like turpentine. The odor was coming from the area by the ice machine and the hot water heater. There was an open pipe coming off the vent pipe and Randy suggested she plug it. We explained the dangers of sewer gas coming in a building, even if it can't be smelled. Randy couldn't get close enough to the floor drain in that area to determine if there is a missing cleanout plug in it. We used the sniffer near the open pipe and the drain in this area but got 0% L.E.L. Randy, Dan and I then went to the following businesses and asked them if they had smelled anything unusual and also asked them about their disposal practices. We collected the following information:

Sunshine Auto Sales - 3156 E. Sunshine. They don't use many solvents, except in the parts washer. They spray their brake cleaners over a trash can. They just have one trench drain and bathrooms that go to the sewer.

Headlines Salon - 3170 E. Sunshine. Personel in the salon didn't smell anything out of the ordinary. They don't do nails at the salon. The woman we talked to said they haven't disposed of any hairstyling chemicals to the sewer that she knew of.

Dental Esthetics Crown & Bridge - 3170 E. Sunshine. The man working in the lab said he didn't notice any unusual odors. He said when he empties the plaster trap every few months it has a strong sewer gas odor. He puts the contents of the trap into the trash.

Absolute Tan - 3170 E. Sunshine. Personnel didn't notice any unusual odors. The tanning bed cleaner is made from a concentrate, then sprayed on the bed and wiped off.

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Crosby & Crosby Dental Laboratory - 3170 E. Sunshine. Personnel hadn't noticed any unusual odors. They also have a plaster trap which they empty into the trash. They occasionally use rubbing alcohol for cleaner.

American National Insurance Co - 3170 E. Sunshine. Personnel hadn't noticed any unusual odors.

Farmers Insurance Group - 3170 E. Sunshine. Personnel hadn't noticed any unusual odors. One woman told us they smelled a sulfur odor about 6 weeks ago, but City personnel had been cleaning the sewer line in the area that day. We looked in the men's restroom, which was being used for storage. We talked to them about keeping water in the traps in the urinal and the sink to prevent sewer gas from coming back up in the building.

India Cuisine - 3184 E. Sunshine. Closed.

Dan Dougherty returned to his office at this time, and Randy and I went across the street to talk to a couple more of the businesses who are served by the same sewer line which serves Cody's. There was a Southwestern Bell employee working in a telephone manhole in front of Andy's Frozen Custard, 3147 E. Sunshine. He told Randy he had been there all day and hadn't noticed any odors in the manhole.

All American Pool & Spa - 3107 E. Sunshine. Personnel didn't notice any unusual odors. They don't dump chemicals down the drain.

Cal Spas - 3121 E. Sunshine. Personnel didn't notice any unusual odors. They don't dump chemicals down the drain.

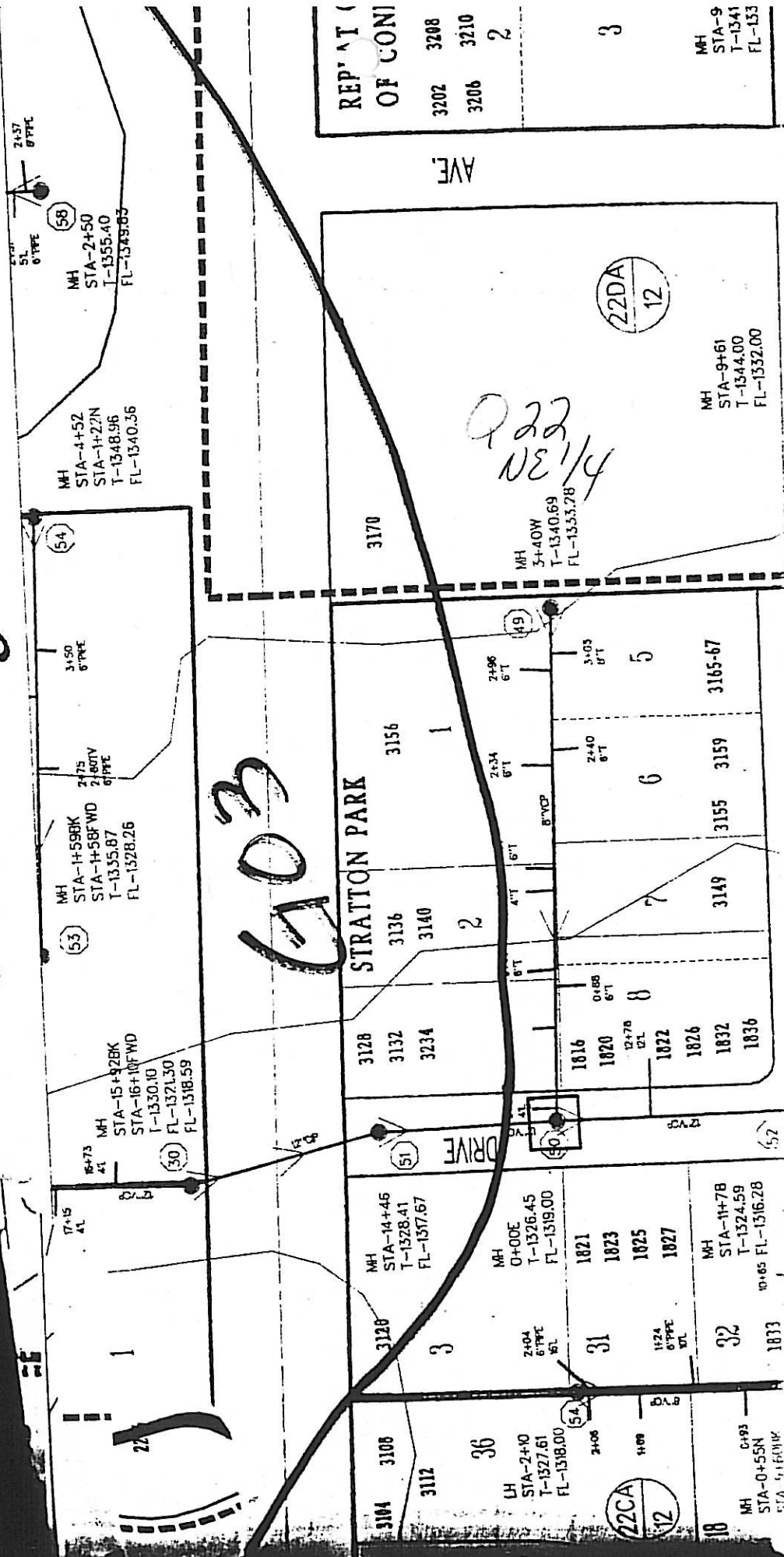


Karen Chandler

IPS

cc: Randy Lyman, Pretreatment Coordinator
File

Sanitary Sewers Local



September 21, 1998

I called Ron Lawson in Food Inspection with the Health Dept. and informed him of our problems at W.F. Cody's during the last two weeks and about the apparent untrapped drains we observed. I also told him about the food thawing out in the open that you referred to earlier. Ron said he would talk to his inspectors and try to get a plumbing inspector from BDS to accompany them on an inspection to determine what may be necessary to fix the plumbing to preclude sewer odors of any kind from entering the premises through the sewer drains. I told him that we plan to send them our standard 'fix your plumbing' letter. I am asking Karen C. to send Ron a copy of our earlier memo and recent memo regarding this incident.

3138 E. Sunshine

I N T E R

O F F I C E

MEMO

To: Cody's-3138 E. Sunshine
From: Karen Chandler
Subject: Solvent smell in building
Date: September 21, 1998

On Thursday, September 17, 1998, Randy Lyman received a call from Richard Barnes, of DNR. Richard had gotten a call from W. F. Cody's about a solvent smell in the building. I went to this location and checked MH 50 (Wye Map Q22- NE) at 12:45 p.m. and got a reading of 0% L.E.L. I opened the manhole cover and could smell a strong sewer gas odor and possibly a faint solvent odor. I then went in the back door of Cody's restaurant and could smell a sewer gas odor in this part of the building. There were also two City Utility employees in the back of the restaurant at this time. They also thought the odor coming in the building smelled like sewer gas. I checked the floor drain in the back with the sniffer and got 0% L.E.L. The open pipe that was coming off the vent pipe was still plugged with the plastic trash sack that Randy stuffed in it a couple of weeks ago. Using a flashlight, I could see an open white plastic pipe, 1 1/2' - 2" in diameter coming into the floor drain from the north to the south direction. I talked to two Cody's personnel about the open pipe and explained the dangers of sewer gas coming into a building, even if it can't be smelled. I also mentioned that if they plugged this open pipe and put a better plug in the vent pipe and the odor was still coming in, that we could do a smoke test to see where else the sewer odor might be coming into the building. I then went to the following businesses and asked them about chemicals they use and their disposal practices:

Lamps Etc - 1722 S. Sieger. They use mineral spirits to polish lamp parts, clean hands and paint brushes. They don't use very much of this, only a gallon about every 3 years, and it evaporates. They use spray paint remover occasionally. The man I was talking to owns the house next door and he says he washes parts out on the driveway. I told him he shouldn't wash solvents out on the ground like this. He also told me he had been on vacation and hadn't used either one of these chemicals for the last three weeks.

Prestige Auto Detailing - 1721 S. Sieger. They don't do detailing anymore. This building is used as a warehouse.

Midwest Cleaning Supply - 3043 E. Sunshine. They don't use any solvents, only soap and water.

Norgetown Laundry & Dry Cleaners - 3033 E. Sunshine. They don't dispose of any dry cleaning fluid to the sewer. It evaporates in the process.

Chapman's Family Hair Care - 3037 E. Sunshine. The only chemicals they use are hair styling

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products, such as perm solution. They don't dispose of outdated hair styling products to the sewer.

New York Salon - 3101 E. Sunshine. They only chemicals they use are hair styling products, perm solution, etc. They don't dispose of outdated hair styling products to the sewer.

I checked MH 30 (P22 SE) and got a reading of 0% L.E. L. I checked MH 50 again and the reading was 0% L.E.L.



Karen Chandler

IPS

cc: Mr. Randy Lyman, Pretreatment Coordinator
Mr. Ron Lawson, Health Department
Mr. Dan Dougherty, Fire Department

Public Works Department

Surveillance Enforcement and Billing
Sewer Maintenance
1216 W. Nichols
Springfield, MO 65802

Phone: 417/864-1923
Fax: 417/864-1918

CITY of
SPRINGFIELD



Date: 9-21-98 Fax #: 864-1099

To: RON LAWSON, HEALTH DEPT

From: KAREN CHANDLER

Message: MEMOS ABOUT W.F. CORDYS

Pages to follow: 4